

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2006-24072; Directorate Identifier 2006-NM-016-AD; Amendment 39-14614; AD 2006-11-10]

RIN 2120-AA64

Airworthiness Directives; Empresa Brasileira de Aeronautica S.A. (EMBRAER) Model EMB-120, -120ER, -120FC, -120QC, and -120RT Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Empresa Brasileira de Aeronautica S.A. (EMBRAER) Model EMB-120, -120ER, -120FC, -120QC, and -120RT airplanes. This AD requires replacing the de-icing system ejector flow control valves with new, improved control valves having hermetically sealed switches; and rewiring applicable connectors. This AD results from a fuel system review conducted by the manufacturer. We are issuing this AD to prevent a potential source of ignition near a fuel tank, which, in combination with flammable fuel vapors, could result in a fuel tank explosion and consequent loss of the airplane.

DATES: This AD becomes effective June 30, 2006.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of June 30, 2006.

ADDRESSES: You may examine the AD docket on the Internet at <http://dms.dot.gov> or in person at the Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street SW., Nassif Building, Room PL-401, Washington, DC.

Contact Empresa Brasileira de Aeronautica S.A. (EMBRAER), P.O. Box 343–CEP 12.225, Sao Jose dos Campos–SP, Brazil, for service information identified in this AD.

FOR FURTHER INFORMATION CONTACT: Dan Rodina, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2125; fax (425) 227-1149.

SUPPLEMENTARY INFORMATION:

Examining the Docket

You may examine the airworthiness directive (AD) docket on the Internet at <http://dms.dot.gov> or in person at the Docket Management Facility office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Management Facility office (telephone (800) 647-5227) is located on the plaza level of the Nassif Building at the street address stated in the ADDRESSES section.

Discussion

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to all Empresa Brasileira de Aeronautica S.A. (EMBRAER) EMB-120() airplane models in operation. That NPRM was published in the Federal Register on March 7, 2006 (71 FR 11341). That NPRM proposed to require replacing the de-icing system ejector flow control valves with new, improved control valves having hermetically sealed switches; and rewiring applicable connectors.

Comments

We provided the public the opportunity to participate in the development of this AD. We have considered the comments received.

Support for NPRM

One commenter, Charter Air Transport, supports the importance of the fuel system review conducted by the manufacturer and the need to prevent a potential source of ignition near fuel tanks.

Request To Review Modification Specified by the NPRM

The same commenter requests that the method of compliance specified by the NPRM should be reviewed. Charter Air Transport states that installing modified flow control valves (bleed air) valves that include hermetically sealed switches is specified in both EMBRAER Service Bulletin 120-30-0034, Revision 01, dated September 22, 2004 (which was specified in the NPRM as the appropriate source of service information for accomplishing the proposed requirements of this AD), and Service Bulletin 120-36-0016, Revision 01, dated October 4, 2004. (EMBRAER Service Bulletin 120-36-0016, Revision 01, is cited as the appropriate source of service information for accomplishing the proposed requirements of a related NPRM that has the same applicability as this NPRM.) Charter Air Transport states that it will cost \$13,451 per airplane to comply with both service bulletins. Charter Air Transport asserts that a more effective method of correcting the unsafe condition at a much-reduced cost would be to install air-purging louvers in certain rear lower fuselage and leading edge fairings, which would vent any fuel vapors away from any potential ignition source in the affected area. Charter Air Transport requests that EMBRAER consider this suggestion as an appropriate method of compliance to address the unsafe condition.

Though Charter Air Transport did not make such a request, we infer that they are asking us to withdraw the NPRM until EMBRAER reviews the specified modification and determines a more appropriate method to correct the unsafe condition. We do not agree. Based on EMBRAER's recommendation, we have determined that installing modified flow control valves is the appropriate method of correcting this unsafe condition. Further, Charter Air Transport provided no data to demonstrate that the proposed louver installation provides an equivalent level of safety or is more

effective than installing modified flow control valves. We have not changed the AD in this regard. However, operators can request an alternative method of compliance (AMOC) in accordance with paragraph (h) of the AD, provided that sufficient data are submitted to substantiate that the proposed AMOC would provide an acceptable level of safety.

Request To Permit Use of Alternative Parts

One commenter, the Modification and Replacement Parts Association (MARPA), requests that the NPRM be revised to allow installation of alternative replacement parts. MARPA asserts that inserting the name of the parts manufacturer (Goodrich) before the cited part number (P/N) will more specifically identify the parts. MARPA states that, "the requirement to install a certain part-numbered part to the exclusion of any other part nullifies 14 CFR 21.303, preventing the development and/or use of alternative parts." MARPA suggests adding the phrase "or FAA-approved equivalent part number" as a suffix to the cited part number to permit installation of equivalent alternative parts.

We do not agree that it is necessary to "more specifically" identify the parts specified in the AD. The correct parts are clearly identified by the P/Ns specified in the AD. We infer that MARPA would like the AD to permit installation of any equivalent parts manufacturer approvals (PMA) parts so that it is not necessary for an operator to request approval of an AMOC in order to install an "equivalent" PMA part. Whether an alternative part is "equivalent" in adequately resolving the unsafe condition can only be determined on a case-by-case basis based on a complete understanding of the unsafe condition. We are not currently aware of any such parts. Our policy is that, in order for operators to replace a part with one that is not specified in the AD, they must request an AMOC. This is necessary so that we can make a specific determination that an alternative part is or is not susceptible to the same unsafe condition.

In response to MARPA's statement that the NPRM "nullifies 14 CFR § 21.303," under which the FAA issues PMAs, this statement appears to reflect a misunderstanding of the relationship between ADs and the certification procedural regulations of part 21 of the Federal Aviation Regulations (14 CFR part 21). Those regulations, including § 21.303 of the Federal Aviation Regulations (14 CFR 21.303), are intended to ensure that aeronautical products comply with the applicable airworthiness standards. But ADs are issued when, notwithstanding those procedures, we become aware of unsafe conditions in these products or parts. Therefore, an AD takes precedence over design approvals when we identify an unsafe condition, and mandating installation of a certain P/N in an AD is not at variance with § 21.303.

The AD provides a means of compliance for operators to ensure that the identified unsafe condition is addressed appropriately. For an unsafe condition attributable to a part, the AD normally identifies the replacement parts necessary to obtain that compliance. As stated in § 39.7 of the Federal Aviation Regulations (14 CFR 39.7), "Anyone who operates a product that does not meet the requirements of an applicable airworthiness directive is in violation of this section." Unless an operator obtains approval for an AMOC, replacing a part with one not specified by the AD would make the operator subject to an enforcement action and result in a civil penalty. No change to the AD is necessary in this regard.

Clarification of Applicability

The NPRM reflected Departamento de Aviacao Civil (DAC) AD 2005-12-02, dated January 19, 2006, and proposed that this AD be applicable "to all EMBRAER EMB-120() aircraft models in operation." However, we determined that this could lead to confusion as to exactly which airplanes are affected. Therefore, to more clearly identify the affected airplanes, we revised the applicability of the AD to specify certain EMBRAER Model EMB-120() airplanes "as identified in EMBRAER Service Bulletin 120-30-0034, Revision 01, dated September 22, 2004." This difference has been coordinated with the DAC.

Conclusion

We have carefully reviewed the available data, including the comments received, and determined that air safety and the public interest require adopting the AD with the change as described. We have determined that this change will neither increase the economic burden on any operator nor increase the scope of the AD.

Costs of Compliance

This AD will affect about 180 airplanes of U.S. registry. The required actions will take about 8 work hours per airplane, at an average labor rate of \$65 per work hour. Required parts will cost about \$2,431 per airplane. Based on these figures, the estimated cost of the AD for U.S. operators is \$531,180, or \$2,951 per airplane.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in subtitle VII, part A, subpart III, section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We have determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866;
- (2) Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket. See the ADDRESSES section for a location to examine the regulatory evaluation.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39–AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The Federal Aviation Administration (FAA) amends § 39.13 by adding the following new airworthiness directive (AD):

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

www.faa.gov/aircraft/safety/alerts/

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2006-11-10 Empresa Brasileira de Aeronautica S.A. (EMBRAER): Amendment 39-14614.
Docket No. FAA-2006-24072; Directorate Identifier 2006-NM-016-AD.

Effective Date

- (a) This AD becomes effective June 30, 2006.

Affected ADs

- (b) None.

Applicability

- (c) This AD applies to EMBRAER Model EMB-120, -120ER, -120FC, -120QC, and -120RT airplanes, certificated in any category, as identified in EMBRAER Service Bulletin 120-30-0034, Revision 01, dated September 22, 2004.

Unsafe Condition

- (d) This AD results from a fuel system review conducted by the manufacturer. We are issuing this AD to prevent a potential source of ignition near a fuel tank, which, in combination with flammable fuel vapors, could result in a fuel tank explosion and consequent loss of the airplane.

Compliance

- (e) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Valve Replacement

- (f) Within 5,000 flight hours after the effective date of this AD, replace the de-icing system ejector flow control valves, part number (P/N) 3D2376-06, with new, improved flow control valves having hermetically sealed switches, P/N 3D2376-07; and rewire the applicable connectors; in accordance with the Accomplishment Instructions of EMBRAER Service Bulletin 120-30-0034, Revision 01, dated September 22, 2004.

Actions Accomplished According to Previous Issue of Service Bulletin

(g) Actions accomplished before the effective date of this AD in accordance with EMBRAER Service Bulletin 120-30-0034, dated October 30, 2003, are considered acceptable for compliance with the corresponding actions of this AD.

Alternative Methods of Compliance (AMOCs)

(h)(1) The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested in accordance with the procedures found in 14 CFR 39.19.

(2) Before using any AMOC approved in accordance with § 39.19 on any airplane to which the AMOC applies, notify the appropriate principal inspector in the FAA Flight Standards Certificate Holding District Office.

Related Information

(i) Brazilian airworthiness directive 2005-12-02, effective January 19, 2006, also addresses the subject of this AD.

Material Incorporated by Reference

(j) You must use EMBRAER Service Bulletin 120-30-0034, Revision 01, dated September 22, 2004, to perform the actions that are required by this AD, unless the AD specifies otherwise. The Director of the Federal Register approved the incorporation by reference of this document in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Contact Empresa Brasileira de Aeronautica S.A. (EMBRAER), P.O. Box 343–CEP 12.225, Sao Jose dos Campos–SP, Brazil, for a copy of this service information. You may review copies at the Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street SW., Room PL-401, Nassif Building, Washington, DC; on the Internet at <http://dms.dot.gov>; or at the National Archives and Records Administration (NARA). For information on the availability of this material at the NARA, call (202) 741-6030, or go to http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Issued in Renton, Washington, on May 16, 2006.

Kevin M. Mullin,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 06-4843 Filed 5-25-06; 8:45 am]

BILLING CODE 4910-13-P